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RÉSUMÉ

Les problèmes de la ressuscitation des grands blessés varient avec la gravité du choc et la localisation des blessures. Il existe maintenant des critères qui permettent d'évaluer la gravité du choc. Le traitement comprend des mesures générales à peu près toujours les mêmes, et des mesures spéciales qui varient selon la localisation des blessures, l'état de la tension artérielle, le taux de concentration du sang et les produits que l'on a à sa disposition. Les blessés du crâne et du thorax ont la priorité et sont soumis à une technique thérapeutique spéciale succinctement décrite.

JEAN SAUCIER

CASE REPORTS

ADVANCED ABDOMINAL PREGNANCY*

By P. Coodin, M.D.

Fort William, Ont.

Full term abdominal pregnancy is an unusual occurrence, but not as rare as is generally supposed. Anyone doing obstetrics may at any time be faced with the diagnosis and treatment of such a case. The following case is reported to illustrate some of the difficulties and complications of abdominal pregnancy.

Mrs. E.B., aged 29, primipara at full term, was admitted for delivery to the obstetric ward of McKellar General Hospital, on June 3, 1945. Her last menstrual period occurred on August 22, 1944 and she was due for confinement on May 29, 1945. Since that day she had backache and pains in the mid-abdomen coming on at irregular intervals. The backache was constant and very annoying allowing her very little rest for the past three nights.

Her menstrual history was normal. The family history was negative except that her mother's first pregnancy had been complicated by pernicious vomiting, serious enough to require its termination by emptying the uterus.

She had been first admitted to this hospital on November 9, 1944, when she was about three months' pregnant. At that time she complained of constipation, nausea, vomiting and intermittent cramps in the upper abdomen which she described as gas pains. These cramps came on every hour and were often followed by vomiting. She could retain no food by mouth. Her admission temperature was 99.4° F., pulse 84. The general physical examination was negative. Blood pressure 104/72. Pelvic examination showed a softened cervix and lower uterine segment. The uterus was about the size of a medium orange and the fundus reached the level of the pubic symphysis. The Fallopian tubes and ovaries could not be palpated. There was a trace of albumin in the urine with 4 to 7 leucocytes and many epithelial cells per high power field. The blood urea nitrogen was 11 mgm. %. There was no jaundice.

* Read before the Thunder Bay Medical Society, October 18, 1945.

On November 14, the patient fainted while in the bathroom and was seized with violent cramps in the back and lower abdomen. For the next two days her gas pains in the epigastric area recurred more frequently and she became quite miserable from vomiting copious amounts of thick coffee-ground fluid. There was an elevation of the temperature to 100.4° F. and the pulse to 120 per minute. There was no vaginal bleeding then or at any time through the rest of the pregnancy. Following this episode her symptoms gradually subsided and she was discharged from the hospital on November 23, feeling well and taking a full diet. She carried on to full term with no untoward event except for feeling vigorous but painless fetal movements during the last two weeks.

The general physical examination of the patient on her second admission was essentially negative. The blood pressure was 130/78. The abdomen showed a symmetrical tumour reaching to 4 fingersbreadth below the xiphoid process. The fetal back could be felt to the right of the umbilicus and the small parts to the left. The head was engaged deep in the pelvis. The fetal heart sounds were loudest below and to the right of the umbilicus. No uterine contractions could be felt though the patient was visibly contorted with intermittent abdominal pains. On vaginal examination one could feel the vertex of the fetal head at the midpelvis. The cervix was effaced and its position high up towards the pubic symphysis. The external os admitted one finger.

An attempt to induce labour by means of castor oil, quinine and pituitrin was made on the day of admission. This was repeated two days later, without success. Several hours after the second induction the patient felt epigastric pains and vomited clear fluid. The vomiting continued and gradually increased in amount and frequency. On June 7, she appeared acutely ill, vomiting copious amounts of dark-brown, foul-smelling fluid. The general symptomatic picture was then very similar to that of her first hospital period in November. The blood urea nitrogen was 22 mgm. %. That afternoon Dr. G. E. McCartney was called in consultation and examined the patient. Though eclampsia could definitely be ruled out in the diagnosis we were under the impression that she was suffering from some atypical form of toxæmia. Because of her exhaustion and poor general condition it was considered advisable to empty the uterus immediately by Cæsarean section.

Operation.—Under spinal anæsthesia the abdomen was opened by a midline incision below the umbilicus. The peritoneum, omentum and fetal membranes were found to be glued together by adhesions. The fetus was lying freely in the abdominal cavity, mostly on the right side. Incision of the membranes was followed immediately by profuse bleeding. A knee was grasped and a full term living male fetus removed after clamping and cutting the cord. The placenta was attached to the lateral and anterior walls of the abdomen, the broad ligament, the left ovary, several coils of small intestine and to the transverse colon. A considerable amount of old clotted blood was removed from the abdomen. The uterus was about the size of a three months' pregnancy and the left Fallopian tube was elongated and scarred. The placenta and membranes were easily separated and removed. In this process the patient went into shock and became cyanosed and pulseless. An attempt was made to administer intravenous saline on the table but no vein could be found even after cutting down in the left cubital space. Hæmorrhage became severe and difficult to control. Dozens of bleeding vessels were clamped and tied in the vicinity of the left ovary. The incision was closed without drainage and the patient was removed from the operating room in a state of semiconsciousness.

The newborn weighed about 7 lb. It showed no gross abnormalities but was a livid grey colour and could not be made to cry even after much stimulation. The respirations were shallow and sighing and there were bronchial breath sounds with fine râles scattered over

both lungs. The infant died of atelectasis 21 hours after birth.

Postoperative course.—The patient was given two transfusions of 500 c.c. each of citrated blood followed by continuous intravenous saline on the night of operation. Shock was promptly relieved and her colour returned. Two blood transfusions were also given the following day. Her blood count at this time showed 3,910,000 red cells and 68% hæmoglobin. Her temperature during the first 12 postoperative days ranged between 101 and 102.4° F., and the pulse 110 to 130 per minute. The bladder and bowel actions were normal. She complained of troublesome gas pains and was vomiting most of the fluids given by mouth. There was considerable distension of the upper abdomen necessitating constant duodenal suction drainage for 4 days following operation.

Examination of the abdomen on June 20, showed a firm rounded tender mass filling the abdomen to one inch above the umbilicus. The operative incision was completely healed. Under novocain infiltration, a midline incision 1 inch long was made below the umbilicus. On opening the peritoneum there was a flow of a large amount of fecal smelling gas and a few drops of blood. With the release of gas the outline of the abdominal mass was felt to be decreasing considerably. A small rubber tube was inserted for drainage and the incision closed. The discharge of fetid gas through the drainage tube continued for about 10 days. The fluid drainage gradually changed from hæmorrhagic to frankly purulent. Following this the abdominal distension and vomiting stopped and the patient was able to retain a soft diet. On June 26, she complained of pain in her back, right shoulder and lower costal area. She had a chill lasting 10 minutes and the respirations were 30 per minute. The x-ray of the chest showed areas of pneumonitis in the base of both lungs. Both diaphragms were high in position but regular in outline indicating increased intra-abdominal pressure.

Penicillin was given by intramuscular and intravenous routes for the next three days with gradual improvement of her respiratory complaints. She was discharged from the hospital on July 21 with a residual induration in the abdomen reaching halfway to the umbilicus and a scanty purulent discharge from the wound.

The patient was last visited on August 27, when she was in excellent health. The drainage stopped and the wound closed completely. A thin hard mass the size of a silver dollar could still be felt in the left lower quadrant. This was not tender. Her normal menstrual period returned on August 25.

COMMENT

A study of the literature on this subject reveals the fact that the great majority of these cases remain undiagnosed before operation. The chances are that when confronted with such a case the attendant will find it in the nature of a surgical emergency and the operative procedure becomes, therefore, of paramount importance. In 1940, Lyman W. Mason published a statistical review[1] of 69 cases of abdominal pregnancy reported in the English literature from 1933 to 1939, including three of his own cases. Mason gives the following points as being helpful in the diagnosis of abdominal pregnancy.

1. There is usually a history of signs and symptoms of early ectopic pregnancy, with probable tubal abortion. This is the most important diagnostic clue and its presence should make the attendant conscious of the possibility of abdominal pregnancy.
2. The fetal movements are usually noticeable and painful to the mother.
3. The cervix shows little effacement, is usually high in position and pushed against the symphysis, and there is no dilatation of the internal os.
4. The uterus, somewhat enlarged, is frequently palpable and may then be mistaken for an ovarian cyst or a fibroid obstructing the birth canal.

In regard to treatment Mason stresses two factors as being of great importance in the mortality and morbidity of these cases.

1. No attempt should be made to move the placenta, except in those rare instances where this can be done easily without damage to important structures and without causing uncontrollable hæmorrhage. Three patients have had laparotomies following an abdominal pregnancy in which the placenta was left *in situ* and it had undergone complete reabsorption.
2. The abdomen should be closed without packing or drainage. Drainage of the abdomen with the placenta left *in situ* appears to be the worst treatment of all. Mason's statistics show that there was no recorded death among patients in whom no attempt was made to remove the placenta and in whom the abdomen was closed without drainage. On the other hand, the mortality was highest and the complications most numerous in those patients in whom the placenta was removed, or in whom drainage was employed.

There were some irregular features in the case reported above distorting the clinical picture and obscuring the diagnosis, and only in retrospect was it possible to reconstruct its progress in logical sequence. Obviously, this patient had a tubal abortion during her first hospital period in November, 1944. This was evidenced by the scarred left Fallopian tube and the old blood clots found at operation. But in the absence of vaginal bleeding and the predominance of vomiting the case was mistaken for one of hyperemesis gravidarum and treated as such. For the same reason the possibility of abdominal pregnancy was not suspected at term. In fact, nausea and vomiting were so prominent on both occasions as to focus the attention almost entirely on the toxic features of the case and thus the real cause of her dystocia was only discovered at operation. Had it been possible to leave the placenta *in situ* this patient's recovery would likely have been less critical and complicated. However, with the profuse bleeding following immediately upon opening the membranes there was no choice left for the surgeon but to remove the placenta and cope with the hæmorrhage afterwards. Nothwithstanding the wide attachment of the placenta in our case its removal caused only a pinpoint perforation in the intestinal wall leading to the accumulation

of gas in the peritoneal cavity and necessitating incision for drainage 12 days postoperatively.

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ACUTE VOLVULUS OF THE GALLBLADDER

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The following case gives a picture of an acute volvulus of the gallbladder simulating a perforated peptic ulcer. It is presented as a reminder that this condition be included in the differential diagnosis of an acute abdomen.

The patient, Tina, was a female full-blooded Samoan stating her age as 53 years. She was seen in the native outpatient department on the evening of May 2, complaining of a vague fullness and discomfort in the midepigastrium which had commenced about one hour after her last meal. She had been constipated one day. There was an indefinite history of previous attacks over a period of years, but she could not recall what had given relief. Sippy powder was given and an enema ordered. The patient returned home with instructions to attend the clinic in the morning.

The ambulance brought the patient into hospital, sixteen hours later. She was in shock and complained of a severe pain in the upper abdomen. The enema had had a good result and the powder had given temporary relief. Thirteen hours prior to admission she had experienced a sharp stabbing pain, then slight relief and thereafter a constant pain. This had been accompanied by frequent vomiting and shivering attacks. The pain had moved to the tip of the 9th rib on the right, but had not radiated. Deep breathing was impossible because of the pain, which also prevented her lying on her left side. Temperature 100.8°, pulse 86, respirations 22, blood pressure 112/56.

The patient had an anxious expression, tongue clean but dry, respirations shallow. The heart size and sounds were normal and the chest was clear. The abdomen showed board-like rigidity throughout and no masses could be palpated. There was neither general or localized distension. Hyperæsthesia to pin-prick was discernible from the midepigastrium to the right in the 6th to 9th thoracic segments. A diagnosis of a perforated peptic ulcer into the lesser sac with slow leakage therefore was made.

Intravenous plasma was commenced; 5 c.c. of indigo carmine was given orally to facilitate localization of the perforation. Under general anæsthesia the abdomen was opened through a right oblique gridiron rectus incision. Free fluid was found but no dye appeared. A finger inserted felt a mass about the size of an orange in the region of the liver hilum. The incision was then enlarged into a right subcostal Kocher. A blue-black mass 3″ in diameter presented through the incision. It was loosely attached to the liver by a thin mesentery and receded along the gallbladder bed for a distance of 5″. The mass was the gallbladder which had rotated clockwise two full turns. Cholecystectomy was performed. The patient made an uneventful recovery, rising on the 3rd day, sutures removed on 8th day. She has been seen each month since and is entirely free of complaints.

The gallbladder was opened, it contained several pure pigment stones. When sectioned, the mucosa was separated from the wall; no excessive fibrosis was present, nor was there any actual perforation.

While volvulus is rare it is even more unusual for it to occur in the presence of calculous cholecystitis.

Apia, Western Samoa.

TULARÆMIA — A PROBLEM IN DIAGNOSIS*

By Ewen A. Mackenzie, M.D.

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The patient, Mrs. M.M., aged 60, was admitted to hospital as a characteristic case of acute diffuse bronchopneumonia. She presented the appearance of an asthenic and run-down individual, acutely and seriously ill. She was markedly dyspnœic, moderately cyanosed and complained of pain in her right chest. Mouth temperature was 102, pulse 104, respirations 28. The most striking findings on physical examination were

* From the Case Records of the Anson General Hospital, Iroquois Falls, Ontario.